

Embodiments of the present invention may use a common pre-defined unit of measure for the step quantity and charges calculation process. This approach provides better efficiency from a performance standpoint and also reduces the unit of measure setup overhead when compared to using different units of measure for some or all step quantities.

Figure 9 depicts a Recipe Validity Rules Selection window 900, according to an embodiment of the present invention.

Recipe Validity Rules Selection window 900 may include a header window 910 which may display information about the selected recipe, for example, the recipe name, the formula name and version, a description of the formula, the quantity produced and a product that uses this recipe.

Recipe Validity Rules Selection window 900 may further include a validity rules editor window 920 which allows a user to edit various validity rules as they relate to the indicated recipe, formula and product.

Recipe Validity Rules Selection window 900 may display whenever the user chooses the option to edit validity rules for a particular product in a recipe. For example, this window may be accessible from the right mouse menu 140 when the user selects a product in the recipe navigator tree 200. Note that this window may only be displayed if there is more than one validity rule for the selected product.

Otherwise, the recipe Validity Rules Maintenance window 1000 may be displayed.

Figure 10 depicts a Recipe Validity Rules Maintenance window 1000, according to an embodiment of the present invention. This window may be displayed when the user presses the detail button 320 from Recipe Validity Rules Selection window 900 or when the Validity Rules option is selected for a product that has only one validity rule defined.

Recipe validity rules maintenance window 1000 may include a recipe identification window 1010 that displays information about the selected recipe, including the recipe name and description, and a product name and description.

Recipe identification window 1010 may further include editable fields for displaying or changing the use of a formula, displaying or changing a standard quantity and displaying or changing a preference associated with the selected recipe.

Still referring to Figure 10, recipe validity rules maintenance window 1000 may further include a quantity range window 1030 that contains fields for displaying or editing minimum and maximum quantities of product to be produced. Recipe validity rules maintenance window 1000 may also include date range window 1040 that contains fields for displaying or editing a from date and a to date to indicate a date range for which the selected recipe is valid.

Recipe validity rules maintenance window 1000 may further contain a customers window 1020 that lists and allows a user to edit customers for the product. It is appreciated that customers is used in a broad sense, and may include any consumer of the identified product, from external “paying” customers to internal users to subsequent process steps.

Upon recipe creation, Validity Rules for the recipe may be automatically created. The attributes may default to either the formula or the routing entered by the user.

- 5           The Preference list is used to determine the preferred recipe in case of conflict. Defaults may be obtained from formula and may be overridden.
- The Formula Use defines the purpose for which this recipe can be used (Production, Costing, Planning etc.) Defaults may be obtained from formula and cannot be overridden.

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The user may specify a Standard Quantity. Defaults may be obtained from formula and can be overridden. It may fall within the minimum and maximum date range.

- 15           The user may specify a Min/Max Quantity. These values may determine the minimum and maximum quantity that this recipe can be used. Values may be derived as explained below:

- 20           If only formula is entered at the recipe creation time, minimum and maximum quantities may default from the formula. Values can be overridden and must fall under the quantity range defined for the formula for this formula use.

If both formula and routing are specified, the quantity range may default to the most restrictive values.

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A user may specify From/To Date. This may define the dates on which this recipe will go into effect (From date) and after which this recipe will no longer be in